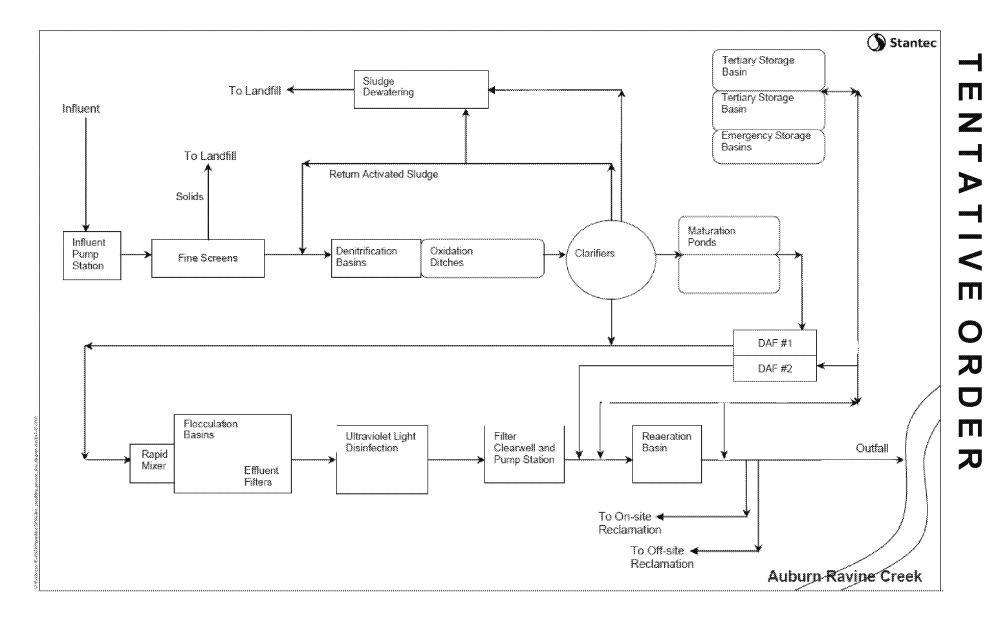
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ATTACHMENT B2 - CLOSE-UP MAP OF TREATMENT PROCESSES



ATTACHMENT B – MAP

ATTACHMENT C - FLOW SCHEMATIC



ATTACHMENT D - STANDARD PROVISIONS

I. STANDARD PROVISIONS - PERMIT COMPLIANCE

A. Duty to Comply

- 1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any non-compliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385)
- 2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1))

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c))

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d))

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e))

E. Property Rights

- This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g))
- 2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c))

F. Inspection and Entry

The Discharger shall allow the Central Valley Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, § 13267, 13383):

- Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
- 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
- 3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, § 13267, 13383); and
- 4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383)

G. Bypass

1. Definitions

- a. "Bypass" means the intentional diversion of waste streams from any required treatment process of the treatment facility. (40 C.F.R. § 122.41(m)(1)(i))
- b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii))
- 2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2))
- Prohibition of bypass. Bypass is prohibited, and the Central Valley Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
 - The Discharger submitted notice to the Central Valley Water Board as required under Standard Provisions Permit Compliance I.G.5 below.
 (40 C.F.R. § 122.41(m)(4)(i)(C))
- 4. The Central Valley Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Valley Water Board determines that it will meet the three conditions listed in Standard Provisions Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii))

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5. Notice

- a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass. The notice shall be sent to the Central Valley Water Board. As of 21 December 2020, all notices shall be submitted electronically to the initial recipient (State Water Board), defined in Standard Provisions Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i))
- b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions Reporting V.E below (24-hour notice). The notice shall be sent to the Central Valley Water Board. As of 21 December 2020, all notices shall be submitted electronically to the initial recipient (State Water Board), defined in Standard Provisions Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(ii))

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary non-compliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include non-compliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1))

- 1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for non-compliance with such technology based permit effluent limitations if the requirements of Standard Provisions Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that non-compliance was caused by upset, and before an action for non-compliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2))
- Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
 - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
 - c. The Discharger submitted notice of the upset as required in Standard Provisions Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
 - d. The Discharger complied with any remedial measures required under Standard Provisions Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv))
- 3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4))

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NPDES NO. CA0084476

II. STANDARD PROVISIONS - PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated non-compliance does not stay any Order condition. (40 C.F.R. § 122.41(f))

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b))

C. Transfers

This Order is not transferable to any person except after notice to the Central Valley Water Board. The Central Valley Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(I)(3); 122.61)

III. STANDARD PROVISIONS - MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1))
- B. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. subchapters N or O. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N or O. For the purposes of this paragraph, a method is sufficiently sensitive when the method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N or O for the measured pollutant or pollutant parameter, or when:
 - 1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and:
 - a. The method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter, or;
 - b. The method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge;

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. § 122.21(e)(3), 122.41(j)(4); 122.44(i)(1)(iv))

IV. STANDARD PROVISIONS - RECORDS

- A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Valley Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2))
- B. Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
 - 2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
 - 3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
 - 4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
 - 5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
 - 6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi))
- C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):
 - The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
 - 2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2))

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Central Valley Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Central Valley Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Central Valley Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383)

B. Signatory and Certification Requirements

- 1. All applications, reports, or information submitted to the Central Valley Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 C.F.R. § 122.41(k))
- 2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3))

- 3. All reports required by this Order and other information requested by the Central Valley Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Standard Provisions Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
 - c. The written authorization is submitted to the Central Valley Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3))
 - 4. If an authorization under Standard Provisions Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions Reporting V.B.3 above must be submitted to the Central Valley Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c))
 - 5. Any person signing a document under Standard Provisions Reporting V.B.2 or V.B.3 above shall make the following certification:
 - "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d))
 - 6. Any person providing the electronic signature for such documents described in Standard Provision V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions Reporting V.B, and shall ensure that all of the relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e))

C. Monitoring Reports

- 1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.41(I)(4))
- 2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Valley Water Board or State Water Board for reporting the results of monitoring, sludge use, or disposal practices. As of 21 December 2016, all reports and forms must be submitted electronically to the initial recipient, defined in Standard Provisions Reporting V.J, and comply with 40 C.F.R. part 3, section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(I)(4)(i))

- 3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Central Valley Water Board. (40 C.F.R. § 122.41(I)(4)(ii))
- 4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(I)(4)(iii))

D. Compliance Schedules

Reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(I)(5))

E. Twenty-Four Hour Reporting

1. The Discharger shall report any non-compliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report shall contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.

For non-compliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the non-compliance was related to wet weather.

As of 21 December 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted electronically to the initial recipient (State Water Board) defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 C.F.R. part 3. The may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(I)(6)(i))

F. Planned Changes

The Discharger shall give notice to the Central Valley Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(I)(1)):

- The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
- 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii))

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The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(I)(1)(iii))

G. Anticipated Non-compliance

The Discharger shall give advance notice to the Central Valley Water Board of any planned changes in the permitted facility or activity that may result in non-compliance with this Order's requirements. (40 C.F.R. § 122.41(I)(2))

H. Other Non-compliance

The Discharger shall report all instances of non-compliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For non-compliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Central Valley Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(I)(7))

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Central Valley Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(I)(8))

J. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the appropriate initial recipient, as determined by U.S. EPA, and as defined in 40 C.F.R. section 127.2(b). U.S. EPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 C.F.R. section 127.2(c)]. U.S. EPA will update and maintain this listing. (40 C.F.R. § 122.41(I)(9))

VI. STANDARD PROVISIONS - ENFORCEMENT

A. The Central Valley Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS - NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTW's)

All POTW's shall provide adequate notice to the Central Valley Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and

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- 2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 C.F.R. § 122.42(b)(2))
- 3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3))

ATTACHMENT E - MONITORING AND REPORTING PROGRAM

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ATTACHMENT E - MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Central Valley Water Board.
- **B.** Final effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
- C. Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory accredited for such analyses by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW; formerly the Department of Public Health). Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. In the event an accredited laboratory is not available to the Discharger for any on-site field measurements such as pH, dissolved oxygen, turbidity, temperature, and residual chlorine, such analyses performed by a non-accredited laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program for any on-site field measurements such as pH, dissolved oxygen, turbidity, temperature, and residual chlorine must be kept on-site in the Facility laboratory and shall be available for inspection by Central Valley Water Board staff. The Discharger must demonstrate sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform these field measurements. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the Central Valley Water Board.
- D. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- E. Monitoring results, including non-compliance, shall be reported at intervals and in a manner specified in this MRP.
- F. Laboratories analyzing monitoring samples shall be accredited by DDW, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.
- **G.** The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board at the following address:

State Water Resources Control Board Quality Assurance Program Officer Office of Information Management and Analysis 1001 I Street, Sacramento, CA 95814

- **H.** The Discharger shall file with the Central Valley Water Board technical reports on self-monitoring performed according to the detailed specifications contained in this MRP.
- I. The results of all monitoring required by this Order shall be reported to the Central Valley Water Board and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description				
	INF-001	A location where a representative sample of the influent into the Facility can be collected prior to entering into the treatment process. Composite sampler before the Parshall flume.				
	INT-001	An internal monitoring location at the filter clearwell where a representative sample of the effluent from the tertiary filters can be collected.				
001	EFF-001	A location where a representative sample of the effluent from the Facility can be collected downstream from the last connection through which wastes can be admitted to the outfall before being discharged to Auburn Ravine Creek.				
~~	RSW-001	Auburn Ravine Creek, approximately 75 feet upstream of Discharge Point 001.				
~~	RSW-002	Auburn Ravine Creek, approximately 2,000 feet downstream of Discharge Point 001.				
	FIL-001	A location where a representative sample of the effluent from the tertiary filtration system can be collected immediately downstream of the filters and prior to the ultraviolet light (UV) disinfection system.				
	UVS-001	A location where a representative sample of wastewater can be collected immediately downstream of the UV disinfection system.				
	BIO-001	A location where a representative sample of biosolids can be obtained.				
		A location where a representative sample of the municipal water supply can be obtained.				
	MW-1 through MW-5	Groundwater monitoring wells (See Master Reclamation Permit R5-2005-0040-01 for groundwater monitoring requirements)				

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the Facility at Monitoring Location INF-001 as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method	
Flow	MGD	Meter	Continuous		
Conventional Pollutants					
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite ¹	3/Week	2	
Total Suspended Solids	mg/L	24-hr	3/Week	2	

Table E-2. Influent Monitoring

Composite¹

IV. EFFLUENT MONITORING REQUIREMENTS

Monitoring Location INT-001

The Discharger shall monitor tertiary filter effluent at Monitoring Location INT-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level (ML):

Table E-3. Effluent Monitoring – Monitoring Location INT-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method			
Conventional Pollutants							
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite ¹	3/Week	2			
Total Suspended Solids	mg/L	24-hr Composite ¹	3/Week	2			

²⁴⁻hour flow proportional composite.

В. **Monitoring Location EFF-001**

When discharging to Auburn Ravine Creek, the Discharger shall monitor tertiary treated effluent at Monitoring Location EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding ML:

Table E-4. Effluent Monitoring – Monitoring Location EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method			
Flow	MGD	Meter	Continuous ¹				
Conventional Pollutants	Conventional Pollutants						
рH	standard units	Grab ¹⁰	1/Day ^{4,5}	3			
Biochemical Oxygen Demand (5-day @ 20° C)	mg/L	24-hr Composite ²	3/Week	3			

²⁴⁻hour flow proportional composite.

Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods requested by the Discharger that have been approved by the Central Valley Water Board or the State Water Board.

Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods requested by the Discharger that have been approved by the Central Valley Water Board or the State Water Board.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method	
Total Suspended Solids	mg/L	24-hr Composite ²	3/Week	3	
Priority Pollutants					
Antimony, Total Recoverable	μg/L	Grab ¹⁰	1/Month	3,6	
Mercury, Total Recoverable	ng/L	Grab 10	1/Quarter	3,6,7	
Non-Conventional Pollutants					
Ammonia Nitrogen, Total (as	mg/L	Grab ¹⁰	1/Week ^{4,8}	3	
N)	lbs/day	Calculate	1/Week	AN TAN	
Chlorine, Total Residual	mg/L	Meter	1/Day ⁹	3	
Dissolved Oxygen	mg/L	Grab ¹⁰	1/Day	3	
Electrical Conductivity @ 25°C	µmhos/cm	Grab ¹⁰	1/Month	3	
Hardness, Total (as CaCO ₃)	mg/L	Grab 10	1/Month	3	
Nitrate Nitrogen, Total (as N)	mg/L	Grab ¹⁰	1/Month	3	
Nitrite Nitrogen, Total (as N)	mg/L	Grab ¹⁰	1/Month	3	
Nitrate Plus Nitrite, Total (as N)	mg/L	Calculate	1/Month	3	
Temperature	°C	Grab ¹⁰	1/Day ^{4,5}	3	
Total Dissolved Solids	mg/L	Grab ¹⁰	1/Month	3	

- The Discharger shall calculate and report the average daily flow for each day. The average daily flow shall be calculated as specified in section VII.C and D of the Waste Discharge Requirements and reported in the monthly self-monitoring reports (SMR's).
- ² 24-hour flow proportional composite.
- Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods requested by the Discharger that have been approved by the Central Valley Water Board or the State Water Board.
- ⁴ pH and temperature shall be recorded at the time of ammonia sample collection.
- A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this MRP shall be maintained at the Facility.
- For priority pollutant constituents, the reporting level (RL) shall be consistent with sections 2.4.2 and 2.4.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (See Attachment E, section IX.D).
- Unfiltered total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA Method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section 9.4.4.2). The analysis of total mercury shall be by U.S. EPA Method 1631 (Revision E), with an RL of 0.5 ng/L.
- 8 Concurrent with whole effluent toxicity (WET) monitoring.
- Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.01 mg/L. Total chlorine residual monitoring is only required when chlorine or chlorine-containing products are used in the treatment process for maintenance purposes (monitoring is not required for the use of chlorinated potable water for filter backwashing) and when discharge to surface water is occurring. When chlorine or chlorine-containing products are not in use in the treatment process, the Discharger shall so state in the monthly SMR. The Discharger may submit a request to eliminate monitoring for total chlorine residual, if data shows that it is not present in downstream treatment processes even when chlorine is in use. The total chlorine residual monitoring may be discontinued upon Executive Officer approval.
- Grab samples shall <u>not</u> be collected at the same time each day to get a complete representation of variations in the influent.

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V. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

- A. Acute Toxicity Testing. The Discharger shall conduct acute toxicity testing to determine whether the effluent is contributing acute toxicity to the receiving water. The Discharger shall meet the following acute toxicity testing requirements:
 - Monitoring Frequency When discharging to Auburn Ravine Creek, the Discharger shall perform quarterly acute toxicity testing, concurrent with effluent ammonia sampling.
 - Sample Types The Discharger may use flow-through or static renewal testing. For static renewal testing, the samples shall be grab samples and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001.
 - 3. <u>Test Species</u> Test species shall be fathead minnows (*Pimephales promelas*).
 - 4. <u>Methods</u> The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, total residual chlorine, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.
 - 5. <u>Test Failure</u> If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger must re-sample and re-test as soon as possible, not to exceed 7 days following notification of test failure.
- B. Chronic Toxicity Testing. The Discharger shall meet the following chronic toxicity testing requirements:
 - 1. <u>Monitoring Frequency</u> When discharging to Auburn Ravine Creek, the Discharger shall perform routine quarterly chronic toxicity testing. If the result of the routine chronic toxicity testing event exhibits toxicity, demonstrated by a result greater than 1.3 TUc (as 100/NOEC) AND a percent effect greater than 25 percent at 100 percent effluent, the Discharger has the option of conducting two additional compliance monitoring events and performing chronic toxicity testing using the species that exhibited toxicity in order to calculate a median. The optional compliance monitoring events shall occur at least 1 week apart, and the final monitoring event shall be initiated no later than 6 weeks from the routine monitoring event that exhibited toxicity.
 - Sample Types Effluent samples shall be flow proportional 24-hour composites and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001. The receiving water control shall be a grab sample obtained from Monitoring Location RSW-001, as identified in this MRP.
 - 3. <u>Sample Volumes</u> Adequate sample volumes shall be collected to provide renewal water to complete the test in the event that the discharge is intermittent.
 - 4. <u>Test Species</u> The testing shall be conducted using the most sensitive species. The Discharger shall conduct chronic toxicity tests with *Ceriodaphnia dubia*, unless otherwise specified in writing by the Executive Officer.
 - 5. <u>Methods</u> The presence of chronic toxicity shall be estimated as specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition*, EPA/821-R-02-013, October 2002 (Method Manual).

- 6. <u>Reference Toxicant</u> As required by the SIP, all chronic toxicity tests shall be conducted with concurrent testing with a reference toxicant and shall be reported with the chronic toxicity test results.
- 7. <u>Dilutions</u> –For routine and compliance chronic toxicity monitoring, the chronic toxicity testing shall be performed using the dilution series identified in Table E-5, below. For Toxicity Reduction Evaluation (TRE) monitoring, the chronic toxicity testing shall be performed using the dilution series identified in Table E-5, below, unless an alternative dilution series is detailed in the submitted TRE Action Plan. Laboratory water control shall be used as the diluent.

Table E-5. Chronic Toxicity Testing Dilution Series

Comple	Dilutions¹ (%)					Control
Sample	100	75	50	25	12.5	Control
% Effluent	100	75	50	25	12.5	0
% Control Water	0	25	50	75	87.5	100

Receiving water control or laboratory water control may be used as the diluent.

- 8. <u>Test Failure</u> The Discharger must re-sample and re-test as soon as possible, but no later than 14 days after receiving notification of a test failure. A test failure is defined as follows:
 - The reference toxicant test or the effluent test does not meet all test acceptability criteria as specified in the Method Manual, and its subsequent amendments or revisions; or
 - b. The percent minimum significant difference (PMSD) measured for the test exceeds the upper PMSD bound variability criterion in the Method Manual.
- C. WET Testing Notification Requirements. The Discharger shall notify the Central Valley Water Board within 24 hours after the receipt of test results exceeding the monitoring trigger during regular or accelerated monitoring, or an exceedance of the acute toxicity effluent limitation.
- D. WET Testing Reporting Requirements. All toxicity test reports shall include the contracting laboratory's complete report provided to the Discharger and shall be in accordance with the appropriate "Report Preparation and Test Review" sections of the method manuals. At a minimum, WET monitoring shall be reported as follows:
 - 1. **Chronic WET Reporting.** Routine and compliance chronic toxicity monitoring results shall be reported to the Central Valley Water Board with the monthly SMR, and shall contain, at minimum:
 - a. The results expressed in TUc, measured as 100/NOEC, and also measured as 100/LC50, 100/EC25, 100/IC25, and 100/IC50, as appropriate.
 - b. The statistical methods used to calculate endpoints;
 - c. The statistical output page, which includes the calculation of the PMSD;
 - d. The dates of sample collection and initiation of each toxicity test; and
 - e. The results compared to the numeric toxicity monitoring trigger.

Additionally, the monthly SMR's shall contain an updated chronology of chronic toxicity test results expressed in TUc, and organized by test species, type of test (survival,

growth or reproduction), and monitoring type, i.e., routine, compliance, Toxicity Evaluation Study (TES), or TRE monitoring.

- 2. **Acute WET Reporting.** Acute toxicity test results shall be submitted with the monthly SMR's and reported as percent survival.
- 3. **TRE Reporting.** Reports for TRE's shall be submitted in accordance with the schedule contained in the Discharger's approved TRE Work Plan, or as amended by the Discharger's TRE Action Plan.
- 4. **Quality Assurance (QA).** The Discharger must provide the following information for QA purposes:
 - Results of the applicable reference toxicant data with the statistical output page giving the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD, and dates tested.
 - b. The reference toxicant control charts for each endpoint, which include summaries of reference toxicant tests performed by the contracting laboratory.
 - c. Any information on deviations or problems encountered and how they were dealt with.
- E. Most Sensitive Species Screening. The Discharger shall perform re-screening to re-evaluate the most sensitive species if there is a significant change in the nature of the discharge. If there are no significant changes during the permit term, a re-screening must be performed prior to permit re-issuance and results submitted with the Report of Waste Discharge (ROWD).
 - 1. Frequency of Testing for Species Sensitivity Screening. Species sensitivity screening for chronic toxicity shall include, at a minimum, chronic WET testing four consecutive calendar quarters using the water flea (*Ceriodaphnia dubia*), fathead minnow (*Pimephales promelas*), and green alga (*Pseudokirchneriella subcapitata*). The tests shall be performed using 100 percent effluent and one control. If the first two species sensitivity re-screening events result in no change in the most sensitive species, the Discharger may cease the species sensitivity re-screening testing and the most sensitive species will remain unchanged.
 - 2. Determination of Most Sensitive Species. If a single test in the species sensitivity screening testing exceeds 1 TUc (as 100/NOEC), then the species used in that test shall be established as the most sensitive species. If there is more than a single test that exceeds 1 TUc (as 100/NOEC), then the species exceeding 1 TUc (as 100/NOEC) that exhibits the highest percent effect shall be established as the most sensitive species. If none of the tests in the species sensitivity screening exceeds 1 TUc (as 100/NOEC), but at least one of the species exhibits a percent effect greater than 10 percent, then the single species that exhibits the highest percent effect shall be established as the most sensitive species. In all other circumstances, the Executive Officer shall have discretion to determine which single species is the most sensitive considering the test results from the species sensitivity screening.

VI. LAND DISCHARGE MONITORING REQUIREMENTS - NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS - NOT APPLICABLE

Recycling monitoring requirements are included in a separate Master Reclamation Permit Order R5-2005-0040-01 (as amended by Order R5-2012-0052).

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Locations RSW-001 and RSW-002

1. When discharging to Auburn Ravine Creek, the Discharger shall monitor Auburn Ravine Creek at Monitoring Locations RSW-001 and RSW-002 as follows:

Table E-6. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method			
Conventional Pollutants	Conventional Pollutants						
рН	standard units	Grab	1/Week ¹	2			
Non-Conventional Pollutants							
Dissolved Oxygen	mg/L	Grab	1/Week ¹	2			
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month ¹	2			
Hardness, Total (as CaCO ₃)	mg/L	Grab	1/Month	2			
Temperature	°F (°C)	Grab	1/Week ¹	2			
Turbidity	NTU	Grab	1/Week ¹	2			

- A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this MRP shall be maintained at the Facility.
- Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods requested by the Discharger that have been approved by the Central Valley Water Board or the State Water Board.
 - 2. In conducting receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Monitoring Locations RSW-001 and RSW-002 when discharging to Auburn Ravine Creek. Attention shall be given to the presence of:
 - a. Floating or suspended matter;
 - b. Discoloration;
 - c. Bottom deposits:
 - d. Aquatic life;
 - e. Visible films, sheens, or coatings;
 - f. Fungi, slimes, or objectionable growths; and
 - g. Potential nuisance conditions.

Notes on receiving water conditions shall be summarized in the monitoring report.

IX. OTHER MONITORING REQUIREMENTS

A. Biosolids

1. Monitoring Location BIO-001

- a. A composite sample of sludge shall be collected once per permit term at Monitoring Location BIO-001 in accordance with U.S. EPA's *POTW Sludge Sampling and Analysis Guidance Document*, August 1989, and tested for priority pollutants (excluding asbestos).
- b. Biosolids monitoring shall be conducted using the methods in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (U.S. EPA publication SW-846), as required in 40 C.F.R. section 503.8(b)(4). All results must be reported on a 100 percent dry weight basis. Records of all analyses must state on each

page of the laboratory report whether the results are expressed in "100 percent dry weight" or "as is."

B. Municipal Water Supply

Monitoring Location SPL-001

a. The Discharger shall monitor the municipal water supply at Monitoring Location SPL-001 as follows:

Table E-7. Municipal Water Supply Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Electrical Conductivity @ 25°C1	µmhos/cm	Grab	1/Quarter	2

- If the water supply is from more than one source, the electrical conductivity and total dissolved solids shall be reported as a weighted average and include copies of supporting calculations.
- Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods requested by the Discharger that have been approved by the Central Valley Water Board or the State Water Board.

C. Filtration System and Ultraviolet Light (UV) Disinfection System

1. Monitoring Locations UVS-001 and FIL-001

a. The Discharger shall monitor the filtration system at Monitoring Location FIL-001 and the UV disinfection system at Monitoring Location UVS-001 as follows:

Table E-8. Filtration System and UV Disinfection System Monitoring Requirements

Parameter	Units	Sample Type	Monitoring Location	Minimum Sampling Frequency
Flow	MGD	Calculate	UVS-001	1/Day
Turbidity ¹	NTU	Meter	FIL-001	Continuous ^{2,3}
Number of UV banks in operation	Number	Observation	N/A	Continuous ²
UV Transmittance	Percent (%)	Meter	UVS-001	Continuous ²
UV Dose ⁴	mJ/cm ²	Calculate	N/A	Continuous ²
Total Coliform Organisms ¹	MPN/100 mL	Grab	UVS-001	1/Day

- Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
- For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation. If analyzer(s) fail to provide continuous monitoring for more than 2 hours and influent and/or effluent from the disinfection process is not diverted for retreatment, the Discharger shall obtain and report hourly manual and/or grab sample results. The Discharger shall not decrease power settings or reduce the number of UV lamp banks in operation while the continuous analyzers are out of service and water is being disinfected.
- Report daily average and maximum turbidity.
- Report daily minimum hourly average UV dose and daily average UV dose. The minimum hourly average dose shall consist of lowest hourly average dose provided in any channel that had at least one bank of lamps operating during the hour interval. For channels that did not operate for the entire hour interval, the dose will be averaged based on the actual operation time.

D. Effluent and Receiving Water Characterization

- 1. 2020 Monitoring. Samples shall be collected from the effluent and upstream receiving water (Monitoring Locations EFF-001 and RSW-001) and analyzed for the constituents listed in Table E-9, below. Samples shall be collected in the First, Second, and Fourth Calendar Quarters of the year 2020. The results of the monitoring shall be submitted to the Central Valley Water Board with the monthly SMR's. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water.
- 2. **Concurrent Sampling.** Effluent and receiving water sampling shall be performed at approximately the same time, on the same date.
- 3. **Sample Type.** All receiving water samples shall be taken as grab samples. Effluent samples shall be taken as described in Table E-9, below.
- Analytical Methods Report. The Discharger shall submit a report electronically via CIWQS submittal, outlining reporting levels (RL's), method detection limits (MDL's), and analytical methods for the constituents listed in tables E-2, E-3, E-4, E-6, E-7, and E-8 by the due date shown in the Technical Reports Table. The Discharger shall comply with the monitoring and reporting requirements for CTR constituents as outlined in section 2.3 and 2.4 of the SIP. The maximum required reporting levels for priority pollutant constituents shall be based on the Minimum Levels (ML's) contained in Appendix 4 of the SIP, determined in accordance with Section 2.4.2 and Section 2.4.3 of the SIP. In accordance with Section 2.4.2 of the SIP, when there is more than one ML value for a given substance, the Central Valley Water Board shall include as RL's, in the permit, all ML values, and their associated analytical methods, listed in Appendix 4 that are below the calculated effluent limitation. The Discharger may select any one of those cited analytical methods for compliance determination. If no ML value is below the effluent limitation, then the Central Valley Water Board shall select as the RL, the lowest ML value, and its associated analytical method, listed in Appendix 4 for inclusion in the permit. Table E-9 below provides required maximum reporting levels in accordance with the SIP.

Table E-9. Effluent and Receiving Water Characterization Monitoring

Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
2-Chloroethyl vinyl ether	μg/L	Grab	1
Acrolein	μg/L	Grab	2
Acrylonitrile	μg/L	Grab	2
Benzene	μg/L	Grab	0.5
Bromoform	μg/L	Grab	0.5
Carbon Tetrachloride	μg/L	Grab	0.5
Chlorobenzene	μg/L	Grab	0.5
Chloroethane	μg/L	Grab	0.5
Chloroform	μg/L	Grab	2
Chloromethane	μg/L	Grab	2
Dibromochloromethane	μg/L	Grab	0.5
Dichlorobromomethane	μg/L	Grab	0.5
Dichloromethane	μg/L	Grab	2
Ethylbenzene	μg/L	Grab	2
Hexachlorobenzene	μg/L	Grab	1
Hexachlorobutadiene	μg/L	Grab	1
Hexachloroethane	μg/L	Grab	1

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Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
Methyl bromide (Bromomethane)	μg/L	Grab	1
Naphthalene	μg/L	Grab	10
Tetrachloroethene	μg/L	Grab	0.5
Toluene	μg/L	Grab	2
trans-1,2-Dichloroethylene	μg/L	Grab	1
Trichloroethene	μg/L	Grab	2
Vinyl chloride	μg/L	Grab	0.5
Methyl-tert-butyl ether (MTBE)	μg/L	Grab	
Trichlorofluoromethane	μg/L	Grab	
1,1,1-Trichloroethane	μg/L	Grab	0.5
1,1,2- Trichloroethane	μg/L	Grab	0.5
1,1-dichloroethane	μg/L	Grab	0.5
1,1-dichloroethylene	μg/L	Grab	0.5
1,2-dichloropropane	μg/L	Grab	0.5
1,3-dichloropropylene	μg/L	Grab	0.5
1,1,2,2-tetrachloroethane	μg/L	Grab	0.5
1,1,2-Trichloro-1,2,2-			
Trifluoroethane	μg/L	Grab	0.5
1,2,4-trichlorobenzene	μg/L	Grab	1
1,2-dichloroethane	μg/L	Grab	0.5
1,2-dichlorobenzene	μg/L	Grab	0.5
1,3-dichlorobenzene	μg/L	Grab	0.5
1,4-dichlorobenzene	μg/L	Grab	0.5
1,2-Benzanthracene	μg/L	Grab	5
1,2-Diphenylhydrazine	μg/L	Grab	1
2-Chlorophenol	μg/L	Grab	5
2,4-Dichlorophenol	μg/L	Grab	5
2,4-Dimethylphenol	μg/L	Grab	2
2,4-Dinitrophenol	μg/L	Grab	5
2,4-Dinitrotoluene	μg/L	Grab	5
2,4,6-Trichlorophenol	μg/L	Grab	10
2,6-Dinitrotoluene	μg/L	Grab	5
2-Nitrophenol	μg/L	Grab	10
2-Chloronaphthalene	μg/L	Grab	10
3,3'-Dichlorobenzidine	μg/L	Grab	5
3,4-Benzofluoranthene	μg/L	Grab	10
4-Chloro-3-methylphenol	μg/L	Grab	5
4,6-Dinitro-2-methylphenol	μg/L	Grab	10
4-Nitrophenol	μg/L	Grab	10
4-Bromophenyl phenyl ether	μg/L	Grab	10
4-Chlorophenyl phenyl ether	μg/L	Grab	5
Acenaphthene	μg/L	Grab	1
Acenaphthylene	μg/L	Grab	10
Anthracene	μg/L	Grab	10
Benzidine	μg/L	Grab	5
Benzo(a)pyrene (3,4-Benzopyrene)	μg/L	Grab	2
Benzo(g,h,i)perylene	µg/L	Grab	5
Benzo(k)fluoranthene	μg/L	Grab	2
Bis(2-chloroethoxy) methane	µg/L	Grab	5
Bis(2-chloroethyl) ether	µg/L	Grab	1
Bis(2-chloroisopropyl) ether	μg/L	Grab	10

Bis(2-ethylnexyl) phthalate? µg/L. Grab 5 Lohybenzyl phthalate µg/L. Grab 10 Chrysene µg/L. Grab 5 Di-n-oxtlyphthalate µg/L. Grab 10 Di-n-oxtlyphthalate µg/L. Grab 10 Dibenzo(a) n)-anthracene µg/L. Grab 10 Dibenzo(a) n)-anthracene µg/L. Grab 10 Dimetryl phthalate µg/L. Grab 10 Dimetryl phthalate µg/L. Grab 10 Fluorane µg/L. Grab 10 Fluorane µg/L. Grab 10 Fluorane µg/L. Grab 10 Helvanthere µg/L. Grab 10 Helvanthere µg/L. Grab 10 Helvanthere µg/L. Grab 1 N-Nitrosodin-propriamine µg/L. Grab 5 N-Nitrosodin-propriamine µg/L. Grab 5 Nitrobenzen	Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
Chrysene μg/L Grab 5 Di-n-otylpithalate μg/L Grab 10 Di-n-otylpithalate μg/L Grab 10 Diberzo(a, h)-anthracene μg/L Grab 0.1 Diembryl phthalate μg/L Grab 10 Dimbryl phthalate μg/L Grab 10 Fluoranthene μg/L Grab 10 Fluoranthene μg/L Grab 10 Fluoranthene μg/L Grab 10 Hexachlorocyclopentadiene μg/L Grab 10 Hexachlorocyclopentadiene μg/L Grab 0.05 Isophorone μg/L Grab 5 N-Nitrosodimentylamine μg/L Grab 1 N-Nitrosodirenenylamine μg/L Grab 1 N-Nitrosodi-n-propylamine μg/L Grab 5 N-Nitrosodi-n-propylamine μg/L Grab 5 N-Nitrosodi-n-propylamine μg/L Grab 1	Bis(2-ethylhexyl) phthalate ²	μg/L	Grab	5
Di-n-butylphthalate	Butyl benzyl phthalate	μg/L	Grab	10
Di-necylphthalate	Chrysene	μg/L	Grab	5
Diethyl phthalate μg/L Grab 10	Di-n-butylphthalate	μg/L	Grab	10
Diethyl phthalate	Di-n-octylphthalate	μg/L	Grab	10
Dimethyl phthalate	Dibenzo(a,h)-anthracene	μg/L	Grab	0.1
Dimethyl phthalate	Diethyl phthalate	μg/L	Grab	10
Fluoranthene	Dimethyl phthalate		Grab	10
Fluorene	Fluoranthene		Grab	10
Hexachlorocyclopentadiene	Fluorene		Grab	10
Indeno(1,2,3-c,d)pyrene	Hexachlorocyclopentadiene		Grab	5
Isophorone			Grab	0.05
N-Nitrosodiphenylamine μg/L Grab 5			Grab	1
N-Nitrosodimethylamine μg/L Grab 5	L			1
N-Nitrosodi-n-propylamine µg/L Grab 5 Nitrobenzene µg/L Grab 10 Pentachlorophenol µg/L Grab 1 Phenanthrene µg/L Grab 5 Phenol µg/L Grab 1 Phyrene µg/L Grab 10 Aluminum µg/L Grab 10 Aluminum µg/L Grab 10 Aluminum µg/L 24-hr Composite³ 5 Arsenic µg/L 24-hr Composite³ 5 Arsenic µg/L 24-hr Composite³ 10 Asbestos MFL 24-hr Composite³ 10 Asbestos MFL 24-hr Composite³ 2 Arsenium µg/L 24-hr Composite³ 2 Beryllium µg/L 24-hr Composite³ 0.5 Chromium (Total) µg/L 24-hr Composite³ 5 Chromium (Vi) µg/L 24-hr Composite³ 5 Chromium (Vi) µg/L 24-hr Composite³ 5 Cyanide µg/L 24-hr Composite³ 5 Cyanide µg/L 24-hr Composite³ 5 Fluoride µg/L 24-hr Composite³ 5 Fluoride µg/L 24-hr Composite³ - Iron µg/L 24-hr Composite³ - Iron µg/L 24-hr Composite³ - Iron µg/L 24-hr Composite³ 0.5 Manganese µg/L 24-hr Composite³ 0.5 Manganese µg/L 24-hr Composite³ 0.5 Manganese µg/L 24-hr Composite³ 20 Selenium µg/L 24-hr Composite³ 5 Silver µg/L 24-hr Composite³ 5 Silver µg/L 24-hr Composite³ 1 Tribultin µg/L 24-hr Composite³ 1 Tribultin µg/L 24-hr Composite³ 0.05 4,4'-DDD µg/L 24-hr Composite³ 0.05 4,4'-DDT µg/L 24-hr Composite³ 0.05 A 4-DDT µg/L 24-hr Composite³ 0.05 A 4-DDT µg/L 24-hr Composite³ 0.05 A 4-hr Composite³ 0.01 Altrin µg/L 24-hr Composite³ 0.01 Altrin µg/L 24-	· · · · · · · · · · · · · · · · · · ·			5
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		ua/L	24-hr Composite ³	0.005
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beta-Hexachlorocyclohexane µg/L 24-hr Composite ³ 0.005				

Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
Chlordane	μg/L	24-hr Composite ³	0.1
delta-Hexachlorocyclohexane	μg/L	24-hr Composite ³	0.005
Dieldrin	μg/L	24-hr Composite ³	0.01
Endosulfan sulfate	μg/L	24-hr Composite ³	0.01
Endrin	μg/L	24-hr Composite ³	0.01
Endrin Aldehyde	μg/L	24-hr Composite ³	0.01
Heptachlor	μg/L	24-hr Composite ³	0.01
Heptachlor Epoxide	μg/L	24-hr Composite ³	0.02
Lindane (gamma- Hexachlorocyclohexane)	μg/L	24-hr Composite ³	0.5
PCB-1016	μg/L	24-hr Composite ³	0.5
PCB-1221	μg/L	24-hr Composite ³	0.5
PCB-1232	μg/L	24-hr Composite ³	0.5
PCB-1242	μg/L	24-hr Composite ³	0.5
PCB-1248	μg/L	24-hr Composite ³	0.5
PCB-1254	μg/L	24-hr Composite ³	0.5
PCB-1260	μg/L	24-hr Composite ³	0.5
Toxaphene	μg/L	24-hr Composite ³	
2,3,7,8-TCDD (Dioxin)	μg/L	24-hr Composite ³	
Ammonia (as N) ⁴	mg/L	24-hr Composite ³	
Boron	μg/L	24-hr Composite ³	
Chloride	mg/L	24-hr Composite ³	
Flow ⁴	MGD	Meter	55.00
Hardness (as CaCO ₃) ⁴	mg/L	Grab	
Foaming Agents (MBAS)	μg/L	24-hr Composite ³	
Mercury, Methyl	ng/L	Grab	
Nitrate (as N) ⁴	mg/L	24-hr Composite ³	
Nitrite (as N) ⁴	mg/L	24-hr Composite ³	
pH ⁴	Std Units	Grab	****
Phosphorus, Total (as P)	mg/L	24-hr Composite ³	
Specific conductance (EC) ⁴	µmhos/cm	24-hr Composite ³	
Sulfate	mg/L	24-hr Composite ³	
Sulfide (as S)	mg/L	24-hr Composite ³	
Sulfite (as SO ₃)	mg/L	24-hr Composite ³	
Temperature ⁴	°C	Grab	
Total Dissolved Solids ⁴	mg/L	24-hr Composite ³	

- The reporting levels required in this table for priority pollutant constituents are established based on section 2.4.2 and Appendix 4 of the SIP.
- In order to verify if bis (2-ethylhexyl) phthalate is truly present, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant.
- ³ 24-hour flow proportional composite.
- The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Table E-4, except for hardness, pH, and temperature, which shall be conducted concurrently with the effluent sampling.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

- 2. Upon written request of the Central Valley Water Board, the Discharger shall submit a summary monitoring report. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).
- 3. Compliance Time Schedules. For compliance time schedules included in the Order, the Discharger shall submit to the Central Valley Water Board, on or before each compliance due date, the specified document or a written report detailing compliance or non-compliance with the specific date and task. If non-compliance is reported, the Discharger shall state the reasons for non-compliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the compliance time schedule.
- 4. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "*Emergency Planning and Community Right to Know Act*" of 1986.

B. Self-Monitoring Reports (SMR's)

- The Discharger shall electronically submit SMR's using the State Water Board's California Integrated Water Quality System (CIWQS) Program website http://www.waterboards.ca.gov/water_issues/programs/ciwqs/. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
- 2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMR's including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMR's are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR. Monthly SMR's are required even if there is no discharge. If no discharge occurs during the month, the monitoring report must be submitted stating that there has been no discharge.
- 3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-10. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
1/Day	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
1/Week	Permit effective date	Sunday through Saturday	Submit with monthly SMR
3/Week	Permit effective date	Sunday through Saturday	Submit with monthly SMR

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Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
1/Month	Permit effective date	1 st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
1/Quarter	Permit effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 August 1 November 1 February of following year
1/Year	Permit effective date	1 January through 31 December	1 February of following year

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable RL and the current laboratory's Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.
 - For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
- Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
- d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
- 5. **Multiple Sample Data.** When determining compliance with an average monthly effluent limitation (AMEL), average weekly effluent limitation (AWEL), or maximum daily effluent limitation (MDEL) for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
 - a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

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- b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
- 6. The Discharger shall submit SMR's in accordance with the following requirements:
 - a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the Facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
 - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements (WDR's); discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
 - c. The Discharger shall attach all laboratory analysis sheets, including quality assurance/quality control information, with all SMR's for which sample analyses were performed.
- 7. The Discharger shall submit in the SMR's calculations and reports in accordance with the following requirements:
 - a. Mass Loading Limitations For ammonia, the Discharger shall calculate and report the mass loading (lbs/day) in the SMR's. The mass loading shall be calculated as follows:

Mass Loading (lbs/day) = Flow (MGD) x Concentration (mg/L) x 8.34

For weekly average mass loading, the weekly average flow and constituent concentration shall be used. For monthly average mass loading, the monthly average flow and constituent concentration shall be used.

- b. Removal Efficiency (BOD₅ and TSS). The Discharger shall calculate and report the percent removal of BOD₅ and TSS in the SMR's. The percent removal shall be calculated as specified in section VII.A of the Waste Discharge Requirements.
- c. **Total Coliform Organisms Effluent Limitations**. The Discharger shall calculate and report the 7-day median of total coliform organisms for the effluent. The 7-day median of total coliform organisms shall be calculated as specified in section VII.E of the Waste Discharge Requirements.
- d. Total Calendar Annual Mass Loading Mercury Effluent Limitations. The Discharger shall calculate and report the total calendar annual mercury mass loading for the effluent in the December SMR. The total calendar annual mass loading values shall be calculated as specified in section VII.B of the Waste Discharge Requirements.
- e. **Dissolved Oxygen Receiving Water Limitations**. The Discharger shall report monthly in the SMR the dissolved oxygen concentrations in the receiving water (Monitoring Locations RSW-001 and RSW-002).

- f. **Temperature Receiving Water Limitations**. The Discharger shall calculate and report the temperature change in the receiving water based on the difference in temperature at Monitoring Locations RSW-001 and RSW-002.
- g. **Turbidity Receiving Water Limitations**. The Discharger shall calculate and report the turbidity change in the receiving water applicable to the natural turbidity condition specified in section V.A.17.a and b of the Waste Discharge Requirements.

C. Discharge Monitoring Reports (DMR's)

DMR's are U.S. EPA reporting requirements. The Discharger shall electronically certify and submit DMR's together with SMR's using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal will be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at: http://www.waterboards.ca.gov/water-issues/programs/discharge-monitoring/.

D. Other Reports

- 1. **Annual Operations Report.** The Discharger shall submit a written report to the Central Valley Water Board, electronically via CIWQS submittal, containing the following by the due date in the Technical Reports Table:
 - The names, certificate grades, and general responsibilities of all persons employed at the Facility.
 - b. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
 - c. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.
 - d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.
 - e. The Discharger may also be requested to submit an annual report to the Central Valley Water Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.
- 2. Annual Pretreatment Reporting Requirements. The Discharger shall submit annually a report to the Central Valley Water Board, with copies to U.S. EPA Region 9 and the State Water Board, describing the Discharger's pretreatment activities over the previous 12 months (1 January through 31 December). In the event that the Discharger is not in compliance with any conditions or requirements of this Order, including noncompliance with pretreatment audit/compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements.

Annual reports shall be submitted by the due dates shown in the Technical Reports Table and include at least the following items:

 A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants U.S. EPA has identified under section 307(a) of the CWA that are known or suspected to be discharged by non-domestic users. This will consist of an annual full priority pollutant scan. The Discharger is not required to sample and analyze for asbestos. The Discharger shall submit the results of the annual priority pollutant scan electronically to the Central Valley Water Board using the State Water Board's CIWQS Program Website.

Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least annually. The Discharger shall also provide any influent, effluent, or sludge monitoring data for non-priority pollutants that may be causing or contributing to Interference, Pass-Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 C.F.R. part 136 and amendments thereto.

- b. A discussion of Upset, Interference, or Pass-Through incidents, if any, at the treatment plant, which the Discharger knows or suspects were caused by non-domestic users of the POTW. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the non-domestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Pass-Through, Interference, or non-compliance with sludge disposal requirements.
- c. The cumulative number of non-domestic users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of non-domestic user responses.
- d. An updated list of the Discharger's significant industrial users (SIU's) including their names and addresses, or a list of deletions, additions and SIU name changes keyed to a previously submitted list. The Discharger shall provide a brief explanation for each change. The list shall identify the SIU's subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall indicate which SIU's, or specific pollutants from each industry, are subject to local limitations. Local limitations that are more stringent than the federal categorical standards shall also be identified.
- e. The Discharger shall characterize the compliance status through the year of record of each SIU by employing the following descriptions:
 - i. Complied with baseline monitoring report requirements (where applicable);
 - ii. Consistently achieved compliance;
 - iii. Inconsistently achieved compliance;
 - iv. Significantly violated applicable pretreatment requirements as defined by 40 C.F.R. section 403.8(f)(2)(vii);
 - v. Complied with schedule to achieve compliance (include the date final compliance is required);
 - vi. Did not achieve compliance and not on a compliance schedule; and
 - vii. Compliance status unknown.